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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,433	09/11/2003	Kenji Hanada	HITA.0432	4089

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EXAMINER	
TRINH, MINH N	

ART UNIT	PAPER NUMBER
3729	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/659,433	HANADA ET AL.	
	Examiner	Art Unit	
	Minh Trinh	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *10-17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,9,18 and 19* is/are rejected.

7)☒ Claim(s) *2 and 4-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/11/03, 2/3/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1- 9 and 18-19 in the reply filed on 12/22/05 is acknowledged. Thus, claims 10-17are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse.

Claim Objections

2. "A method" (dependent claims 2-9 and 19) should have been changed to:--The method--, as to reflect the dependent claim formats.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 3, 9 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juskey et al (5,438,216) in view of JP2003-78077.

Juskey et al teaches substantially every limitations of the method of manufacturing a solid-state image sensing device of the present application including steps of: preparing a wiring substrate mother board 10 having a first face and a second face on the side opposite thereof (see Fig. 1), mounting first electronic components 14, 20 over said substrate mother board first face (see Fig. 1). encapsulating said first electronic components by using an encapsulation body 50 (see Fig. 2). Juskey et al however in silent about the following steps: mounting second electronic components including image sensors over said second face of said wiring substrate mother board; and joining a frame to said second face of said wiring substrate mother board so as to cover said second electronic components, wherein said frame has a position adjustment pin for adjusting the position of said frame with said wiring substrate mother board, wherein said wiring substrate mother board has a through hole into which said position adjustment pin is to be inserted, and wherein said position adjustment pin and said through hole are provided outside a junction face between said frame and said wiring substrate mother board. The JP2003-78077 discloses the process steps above (see Fig. 10, for the mounting second electronic components including image sensors over said second face of said wiring substrate mother board 31), and Fig. 14 for the teaching of joining a frame to said second face of said wiring substrate mother board so as to cover said second electronic components, wherein said frame has a position adjustment pin and substrate mother board has a through hole into which said position adjustment

pin is to be inserted, and wherein said position adjustment pin and said through hole are provided outside a junction face between said frame and said wiring substrate mother board (as shown in process Figs. 14a-c). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the JP2003-78077 teaching as discussed above on to the method invention of the Juskey et al in order to form a desired sensor module having a light and thin profiles.

As applied to claim 3, it would have been an obvious matter of design choice to choose any desired encapsulating portion of the device including not to encapsulate the though hole or avoid it since applicant has not disclosed that these features are critical, patentably distinguishing features and it appears that the invention would perform equally well with the encapsulating portion of the though hole as disclosed by the Juskey's reference (see Figs. 1 and 6, and the discussion at col. 3, about lines 55-60).

As applied to claim 9, CMOS is well known in the art, it would have been an obvious matter of design choice to form a CMOS by using the process as provided by each of the references. Note: limitation of claim 9 does not seem to further limit the claimed method, since the prior art references for making a sensor device, which is broadly readable on the claimed CMOS sensor.

Limitation of claim 18 is also satisfied as the above discussion (similar to the rejection of claim 1 above).

As applied to claims 3 and 9, it would have been an obvious matter of design choice to choose any desired coating process such as by using squeegee having comb teeth shape for coating, etc., it since applicant has not disclosed that the use of the

above feature is critical, patentably distinguishing features and it appears that the invention would perform equally well with the conventional for coating as described in the col. 4, lines 50-56 of the Juskey's reference.

5. Claim 19 is also rejected under 35 U.S.C. 103(a) as being unpatentable over Juskey et al (5,438,216) and JP2003-78077 as modified and further in view of Okuno et al (6,579,748).

The Juskey et al or JP2003-78077 as modified above in silent about the limitation of claim 19 where the use of squeegee for coating. Okuno et al disclose such (see Fig. 4, which shows squeegee 20 being used for coating). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the Okuno's teaching as described above onto the modified invention of Juskey et al or JP2003-78077 for number of known benefits including coating by and printing on a designate regions (surface) of the associated device in an effectively manner.

Allowable Subject Matter

6. Claims 2 and 4-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (571) 272-4569. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mt
3/3/06

MINH TRINH
PRIMARY EXAMINER